

REMARKS

Applicants and Applicants' representative wish to thank the Examiner for taking the time to discuss the outstanding issues set forth in the most recent office action during the Examiner Interview held June 16, 2009. Reconsideration and allowance for the above-identified application are now respectfully requested. Claims 41-42, 44-48, 50-54, 56-63, 65-68, 70-87 and 91-93 are pending, wherein claims 41, 59, 65, 72, 77, 81 and 88 have been amended.

I. ART REJECTION

The Office Action rejects claims 41-42, 44-48, 50-54, 56-63, 65-68, 70-87 and 91-93 under 35 U.S.C. § 103(a) as being unpatentable over McLaughlin (US 6,108,850) and Shimada et al. (US 5,626,837). In response, Applicants have amended the independent claims in a manner that is believed to distinguish over McLaughlin, which discloses an abrasive toothpaste composition, and Shimada, which was only cited for the teaching regarding antimicrobial agents in a dental composition. The independent claims claim a dental bleaching composition that is substantially free of abrasives comprised of a dental bleaching agent, potassium nitrate and a carrier that is substantially free of abrasives into which the dental bleaching agent and potassium nitrate are dispersed such that the dental bleaching composition contains less than 20% by weight of an abrasive.

As discussed during the Examiner Interview, the Application defines "substantially free of abrasives" as an amount less than 20% of an abrasive. *See* Application, page 5, lines 20-26; page 10, lines 8-10. Accordingly, the independent claims were amended in order to further define the term "substantially free of abrasives" as meaning that the overall dental bleaching composition contains less than 20% by weight of an abrasive.

The Examiner acknowledges that dental bleaching compositions that are free of abrasives are patentable over McLaughlin and Shimada. Office Action, page 5 ("claims 55, 64 and 69 exclude abrasives from the instant composition and these claims would be allowable once added to the independent claims"). As discussed during the Examiner Interview, in the only example in McLaughlin in which both a dental bleaching agent and potassium nitrate are combined together in a dental composition (col. 7, lines 6-15), the composition includes 83.5% of a "paste carrier", thus implying that this composition includes a substantial quantity of an abrasive, likely for more than 20% by weight. Although McLaughlin does not specify how much abrasive is included in the compositions, the present Application states that abrasive toothpaste compositions typically contain 20% or more of an abrasive (page 10, lines 8-10), which indicates that the toothpaste

composition of McLaughlin likely includes more than 20% of an abrasive. For this reason, Applicants submit that the claims as now presented are patentable over McLaughlin, either alone or in combination with Shimada.

II. OBVIOUSNESS-TYPE DOUBLE PATENTING REJECTION

The Office Action rejects claims 41-42, 44-48, 50-87 and 91-93 under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claims 1-23 of U.S. Patent No. 6,306,370 ("370 patent"). Applicants incorporate by reference the arguments set forth in the previous amendment. As discussed during the Examiner Interview, the Office Action indicates that the three ranges for the potassium nitrate (about 0.01-2%, about 0.05-1% and about 0.5%) are acceptable extrapolations based on the trend shown in the comparative test data (*i.e.*, sensitivity decreased when potassium nitrate is included in an amount greater than 0% and less than 3%). On the other hand, sensitivity was relatively unaffected when increasing the amount of dental bleaching agent from 10% to 15%, which amounts to a 50% increase. That shows that it is the amount of potassium nitrate, not the amount of dental bleaching agent, that is the critical variable that affects sensitivity. The only reason why amounts of bleaching agent ranging from 10-15% were used in the test was because those were common commercial formulations. They have nothing to do with any attempt to reduce sensitivity. Amounts greater than 15% or less than 10% could have been used and would likely have shown similar effects relative to sensitivity. In view of this, Applicants submit that the trend shown in the comparative test data support the three ranges of bleaching agent recited in the claims (10-15%, 10-20% and 10-30%). Because the claims are narrowly tailored to claim dental bleaching compositions that are unexpectedly superior with regard to reducing tooth sensitivity compared to compositions that include 3% potassium nitrate, and because the '370 patent explicitly teaches that including 3-10% potassium nitrate is most preferred (col. 6, lines 57-58), Applicants submit that the claims are unobvious over the claims of the '370 patent.

In the event the Examiner finds any remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview or which may be overcome by Examiner amendment, the Examiner is requested to contact the undersigned attorney.

The Commissioner is hereby authorized to charge payment of any of the following fees that may be applicable to this communication, or credit any overpayment, to **Deposit Account No. 23-3178**: (1) any filing fees required under 37 CFR § 1.16; (2) any patent application and reexamination processing fees under 37 CFR § 1.17; and/or (3) any post issuance fees under 37

CFR § 1.20. In addition, if any additional extension of time is required, which has not otherwise been requested, please consider this a petition therefore and charge any additional fees that may be required to **Deposit Account No. 23-3178**.

Dated this 19th day of June 2009.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'J. M. Gynn', with a large, sweeping initial 'J'.

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